

CLAIMS

What is claimed is:

- 1 1. An interface system suitable for coupling a first bus interface controller with a
2 second bus interface controller, comprising:
3 a first bus interface controller; and
4 a second bus interface controller wherein the second bus interface controller is
5 coupled to the first bus interface controller via an interface including
6 a command queuing interface suitable for enqueueing a
7 transaction;
8 a command completion interface suitable for reporting transaction
9 completion; and
10 a data transfer interface suitable for transferring data.

- 1 2. The interface system as described in claim 1, wherein command and control
2 information are suitable for being exchanged on at least one of the command
3 queuing interface and command completion interface while data is exchanged on
4 the data transfer interface.

- 1 3. The interface system as described in claim 1, wherein data for a transaction is
2 suitable for being moved without respect to a current transaction being requested
3 on a control bus.

- 1 4. The interface system as described in claim 1, wherein a backend master device
2 enqueues a transaction on the command queuing interface, at least one transfer
3 of data is accomplished corresponding to the transaction queued on the
4 command queuing interface, and completion status of the transaction is reported
5 on the command completion interface.

1 5. The interface system as described in claim 1, wherein a plurality of transactions
2 are queued, the transaction are completed without regard to an order the
3 transactions are queued.

1 6. The interface system as described in claim 1, wherein the first bus interface
2 controller is suitable for coupling to a backend device and the second bus
3 interface controller is suitable for coupling to an internal bus of an information
4 handling system.

1 7. The interface system as described in claim 1, wherein the first bus interface
2 controller conforms to at least one of a USB standard, SCSI standard, fiber
3 standard and the second bus interface conforms to at least one of a PCI standard
4 and PCI-X standard.

1 8. The interface system as described in claim 1, wherein a plurality of data
2 transfers on the data transfer interface are executed, the plurality of data
3 transfers corresponding to a transaction queued on the command queuing
4 interface.

- 1 9. A method of transferring data, comprising:
2 enqueueing a transaction on a command queuing interface;
3 transferring data corresponding to the transaction on a data transfer interface;
4 and
5 receiving notification of completion of the transfer of data corresponding to the
6 transaction, the notification reported on a command completion interface.
- 1 10. The method as described in claim 9, wherein a plurality of transactions are
2 queued, the transaction are completed without regard to an order the
3 transactions are queued.
- 1 11. The method as described in claim 9, wherein command and control information
2 are suitable for being exchanged on at least one of the command queuing
3 interface and command completion interface while data is exchanged on the data
4 transfer interface.
- 1 12. The method as described in claim 9, wherein data for a transaction is suitable
2 for being moved without respect to a current transaction being requested on a
3 control bus.
- 1 13. The method as described in claim 9, wherein a backend master device enqueues
2 a transaction on the command queuing interface, at least one transfer of data is
3 accomplished corresponding to the transaction queued on the command queuing
4 interface, and completion status of the transaction is reported on the command
5 completion interface.

- 1 14. An interface system suitable for coupling a first bus interface controller with a
2 second bus interface controller, comprising:
3 a first bus interface controller suitable for coupling to a backend device; and
4 a second bus interface controller suitable for coupling to an internal bus of an
5 information handling system, wherein the second bus interface controller
6 is coupled to the first bus interface controller via an interface including
7 a command queuing interface suitable for enqueueing a
8 transaction;
9 a command completion interface suitable for reporting transaction
10 completion; and
11 a data transfer interface suitable for transferring data.
- 1 15. The interface system as described in claim 14, wherein command and control
2 information are suitable for being exchanged on at least one of the command
3 queuing interface and command completion interface while data is exchanged on
4 the data transfer interface.
- 1 16. The interface system as described in claim 14, wherein data for a transaction is
2 suitable for being moved without respect to a current transaction being requested
3 on a control bus.
- 1 17. The interface system as described in claim 14, wherein a backend master device
2 enqueues a transaction on the command queuing interface, at least one transfer
3 of data is accomplished corresponding to the transaction queued on the
4 command queuing interface, and completion status of the transaction is reported
5 on the command completion interface.
- 1 18. The interface system as described in claim 14, wherein a plurality of

2 transactions are queued, the transaction are completed without regard to an
3 order the transactions are queued.

1 19. The interface system as described in claim 14, wherein the first bus interface
2 controller conforms to at least one of a USB standard, SCSI standard, fiber
3 standard and the second bus interface conforms to at least one of a PCI standard
4 and PCI-X standard.

1 20. The interface system as described in claim 14, wherein a plurality of data
2 transfers on the data transfer interface are executed, the plurality of data
3 transfers corresponding to a transaction queued on the command queuing
4 interface.